

WHAT WE CLAIM IS:

1. An method for establishing a communication link between a host computer and a communication network, wherein said host computer is provided with at least two communication tools, said method comprising the steps of:

(a) initializing network connection parameters of said host computer and sending out a network connection request to a first communication tool;

(b) polling a server which is capable of providing a network access to said communication network over said first communication tool by means of a network diagnostic apparatus to determine whether said server is accessible over said first communication tool;

(c) establishing a communication link between said first communication tool and said server which is capable of providing a network access to said communication network over said first communication tool if said server which is capable of providing a network access to said communication network over said first communication tool is determined to be accessible over said first communication tool; and

(d) establishing a communication link between a second communication tool and a server which is capable of providing a network access to said communication network over said second communication tool if said server which is capable of providing a network access to said communication network over a first communication tool is determined to be inaccessible over said first communication tool.

2. The method as set forth in claim 1, wherein said first communication tool is built in said host computer.
3. The method as set forth in claim 2, wherein said first communication tool comprises a local area network (LAN) device.
- 5 4. The method as set forth in claim 2, wherein said first communication tool comprises a modem (modulator-demodulator) device.
5. The method as set forth in claim 1, wherein said first communication tool comprises one selected from a group consisting of a modem (modulator-demodulator) device, a cable modem, an integrated service  
10 digital network (ISDN) modem, an asymmetric digital subscriber line (ADSL) modem, and a satellite communication plant.
6. The method as set forth in claim 1, wherein said network diagnostic apparatus comprises a ping utility.
7. The method as set forth in claim 1, wherein said second  
15 communication tool comprises one selected from a group consisting of a modem (modulator-demodulator) device, a cable modem, an integrated service digital network (ISDN) modem, an asymmetric digital subscriber line (ADSL) modem, and a satellite communication plant.
8. In a host computer, a system for establishing a communication link  
20 between a host computer and a communication network, comprising:  
    at least two communication tools, each of which is operable in response to a network connection request to establish a communication link with a server which is capable of providing a network access to said communication network over said communication tool; and  
25     a microprocessor for initialing network connection parameters of said host computer and sending a network connection request to a first communication tool to establish a communication link between said host

computer and said communication network over said first communication tool, and resending a network connection request to a second communication tool to establish a communication link between said host computer and said communication network over said second communication tool if a server which is capable of providing a network access to said communication network over said first communication tool is determined to be inaccessible.

9. The system as set forth in claim 8, further comprising an I/O control device for controlling a data flow among said microprocessor and said communication tools.

10. The system as set forth in claim 8, further comprising a network diagnostic apparatus for polling said server to determine whether said server is accessible over said communication tool.

11. The system as set forth in claim 8, wherein said network diagnostic apparatus comprises a ping utility.

12. The system as set forth in claim 8, wherein said first communication tool is built in said host computer.

13. The system as set forth in claim 12, wherein said first communication tool comprises a local area network (LAN) device.

14. The system as set forth in claim 12, wherein said first communication tool comprises a modem (modulator-demodulator) device.

15. The system as set forth in claim 8, wherein said first communication tool comprises one selected from a group consisting of a modem (modulator-demodulator) device, a cable modem, an integrated service digital network (ISDN) modem, an asymmetric digital subscriber line (ADSL) modem, and a satellite communication plant.

16. The system as set forth in claim 8, wherein said second communication tool comprises one selected from a group consisting of a modem (modulator-demodulator) device, a cable modem, an integrated service digital network (ISDN) modem, an asymmetric digital subscriber line (ADSL) modem, and a satellite communication plant.

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